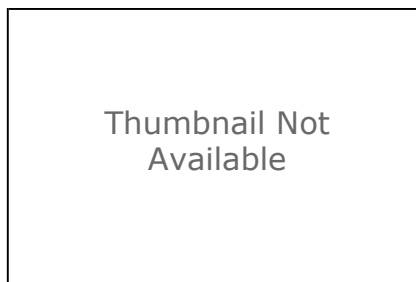


Potentiometric Surface Map of the Bedrock Aquifers of Warren County, Indiana

Shapefile



Tags

Potentiometric surface, static water level, groundwater, water wells, water tables, Warren County, Indiana, USA

Summary

Display and/or analyses requiring spatial distribution of potentiometric surface elevations in Warren County, Indiana.

Description

This file is a digital geospatial polyline coverage of the bedrock potentiometric surface elevations mapped for Warren County, Indiana.

Credits

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

Use limitations

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

Extent

West -87.531517 **East** -87.091692
North 40.459571 **South** 40.127048

Scale Range

Maximum (zoomed in) 1:5,000

Minimum (zoomed out) 1:150,000,000

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE geoscientificInformation

* CONTENT TYPE Downloadable Data

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

PLACE KEYWORDS Warren County, Indiana, USA

THEME KEYWORDS Potentiometric surface, static water level, groundwater, water wells, water tables

Hide Topics and Keywords ▲

Citation ►

TITLE Potentiometric Surface Map of the Bedrock Aquifers of Warren County, Indiana

CREATION DATE 2015-07-15 00:00:00

EDITION 1

EDITION DATE 2015-07-15

PRESENTATION FORMATS * digital map

SERIES

NAME Bedrock Potentiometric Surface Map

ISSUE PSM 56-B

OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Ambia, Attica, Bismarck, Chatterton, Covington, Danville NE, Otterbein, Pine Village, Stone Bluff, Tab, West Lebanon, Westpoint, and Williamsport.

Hide Citation ▲

Citation Contacts ►

RESPONSIBLE PARTY

INDIVIDUAL'S NAME Glenn E. Grove

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water

CONTACT'S POSITION Resource Assessment Section

CONTACT'S ROLE originator

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4160

FAX 317-233-4579

ADDRESS

TYPE both

DELIVERY POINT 402 W. Washington Street W264
 CITY Indianapolis
 ADMINISTRATIVE AREA Indiana
 POSTAL CODE 46204
 COUNTRY UNITED STATES
 E-MAIL ADDRESS ggrove@dnr.IN.gov

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
 CONTACT'S ROLE publisher

CONTACT INFORMATION ►

ADDRESS

DELIVERY POINT Indianapolis, Indiana, USA

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

Resource Details ►

DATASET LANGUAGES English (UNITED STATES)
 DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed

SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.2.2.3552

CREDITS

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

ARCGIS ITEM PROPERTIES

* NAME BED_PSM_Warren_Co_IN
 * SIZE 0.685
 * LOCATION file:///\\iotisip01pa\dnrgis\$!\Potentiometric\Warren\1_Web_Products\BED_PSM_Warren_Co_IN.shp
 * ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -87.531517

* EAST LONGITUDE -87.091692
 * NORTH LATITUDE 40.459571
 * SOUTH LATITUDE 40.127048
 * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 454934.635400
 * EAST LONGITUDE 492187.851800
 * SOUTH LATITUDE 4441992.479000
 * NORTH LATITUDE 4478771.228500
 * EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Glenn E. Grove
 ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
 CONTACT'S POSITION Resource Assessment Section
 CONTACT'S ROLE author

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4160
 FAX 317-233-4579

ADDRESS

TYPE both
 DELIVERY POINT 402 W. Washington Street W264
 CITY Indianapolis
 ADMINISTRATIVE AREA Indiana
 POSTAL CODE 46204
 COUNTRY UNITED STATES
 E-MAIL ADDRESS ggrove@dnr.IN.gov

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of

the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

OTHER CONSTRAINTS

The Indiana Department of Natural Resources, Division of Water has compiled this data set using data believed to be reasonably accurate. However, the Division makes no representation as to the accuracy, completeness, or usefulness of the data or data set. A degree of error is inherent in all maps. This map is intended for use only at the published scale. Reference to any specific commercial product, process, or service does not constitute an endorsement, recommendation, or favoring by the Division. Copyright 2015, Indiana Department of Natural Resources, Division of Water All Rights Reserved Any copying, adaptation, or distribution of these data without the express written consent of the Indiana Department of Natural Resources, Division of Water is discouraged.

[Hide Resource Constraints ▲](#)

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

```
* TYPE      Projected
* GEOGRAPHIC COORDINATE REFERENCE  GCS_North_American_1983
* PROJECTION  NAD_1983_UTM_Zone_16N
* COORDINATE REFERENCE DETAILS
  PROJECTED COORDINATE SYSTEM
    WELL-KNOWN IDENTIFIER  26916
    X ORIGIN  -5120900
    Y ORIGIN  -9998100
    XY SCALE  450445547.3910538
    Z ORIGIN  -100000
    Z SCALE  10000
    M ORIGIN  -100000
    M SCALE  10000
    XY TOLERANCE  0.001
    Z TOLERANCE  0.001
    M TOLERANCE  0.001
    HIGH PRECISION  true
    LATEST WELL-KNOWN IDENTIFIER  26916
    WELL-KNOWN TEXT  PROJCS["NAD_1983_UTM_Zone_16N",GEOGCS
["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID
["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Transverse_Mercator"],PARAMETER
["False_Easting",500000.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",-87.0],PARAMETER["Scale_Factor",0.9996],PARAMETER
["Latitude_Of_Origin",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",26916]]
```

REFERENCE SYSTEM IDENTIFIER

```
* VALUE  26916
```

* CODESPACE EPSG
 * VERSION 8.2.6

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME BED_PSM_Warren_Co_IN

* OBJECT TYPE composite

* OBJECT COUNT 73

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME BED_PSM_Warren_Co_IN

* FEATURE TYPE Simple

* GEOMETRY TYPE Polyline

* HAS TOPOLOGY FALSE

* FEATURE COUNT 73

* SPATIAL INDEX TRUE

* LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

DIMENSION horizontal

MEASURE DESCRIPTION

In conducting the mapping, the author(s) evaluated hundreds of water well records, especially those having relatively complete information on well location, static water level, well depth, ground elevation, and lithology. There were areas in the county with sparse information because of lack of well records or incomplete records.

[Hide Data quality report - Completeness omission ▲](#)

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ►

DIMENSION horizontal

MEASURE DESCRIPTION

The mapping was conducted after a thorough documentation of well locations and water well record details.

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

MEASURE DESCRIPTION

The locations of many wells were field checked and the locations posted on 7.5 minute topographic maps. Visual confirmation of wells was not always possible. Many locations were based only on the street address, driving directions, or other location information provided on the well record.

[Hide Data quality report - Absolute external positional accuracy ▲](#)

[Hide Data Quality ▲](#)

Lineage ►

PROCESS STEP ►

DESCRIPTION

Data were selected by careful evaluation of water well records to determine if the wells were field located and if they contained complete and reasonable information.

[Hide Process step ▲](#)

PROCESS STEP ►

DESCRIPTION

After selection of water well records was complete, specific well data and other maps and reports were considered in the mapping process. For example, ground elevation, static water level, well depth, aquifer top and bottom elevation and lithology were obtained from well records. Other maps and reports included regional potentiometric surface elevations, hydrogeologic settings, groundwater availability, bedrock topography, and surface topography.

[Hide Process step ▲](#)

PROCESS STEP ►

DESCRIPTION

A polyline coverage was created using the heads-up method and attributed by Glenn E. Grove. Attribute definitions are described below.

[Hide Process step ▲](#)

SOURCE DATA ▶**DESCRIPTION**

Water well records from the IDNR-DOW well record database; USGS topography maps; various consultant geotechnical reports

SOURCE CITATION ▶

TITLE Potentiometric Surface Map of the Bedrock Aquifers of Warren County, Indiana
PUBLICATION DATE 2015-07-15 00:00:00

EDITION 1

SERIES

NAME Bedrock Potentiometric Surface Map
ISSUE PSM 56-B

RESPONSIBLE PARTY

INDIVIDUAL'S NAME Glenn E. Grove
ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
CONTACT'S POSITION Resource Assessment Section
CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
CONTACT'S ROLE publisher

Hide Source citation ▲

Hide Source data ▲

Hide Lineage ▲

Distribution ▶**DISTRIBUTOR** ▶**CONTACT INFORMATION**

INDIVIDUAL'S NAME Glenn E. Grove
ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
CONTACT'S POSITION Resource Assessment Section
CONTACT'S ROLE distributor

CONTACT INFORMATION ▶**PHONE**

VOICE 317-232-4160
FAX 317-233-4579

ADDRESS

TYPE both
DELIVERY POINT 402 W. Washington Street W264
CITY Indianapolis
ADMINISTRATIVE AREA Indiana
POSTAL CODE 46204
COUNTRY UNITED STATES
E-MAIL ADDRESS ggrove@dnr.IN.gov

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

* NAME Shapefile

TRANSFER OPTIONS

* TRANSFER SIZE 0.685

ONLINE SOURCE

LOCATION <http://www.in.gov/dnr/water/7256.htm>[Hide Distribution ▲](#)**Fields ►**DETAILS FOR OBJECT [BED_PSM_Warren_Co_IN ►](#)

* TYPE Feature Class

* ROW COUNT 73

DEFINITION

polyline

DEFINITION SOURCE

ESRI

FIELD [FID ►](#)

* ALIAS FID

* DATA TYPE OID

* WIDTH 4

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Internal feature number.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

[Hide Field FID ▲](#)FIELD [Shape ►](#)

* ALIAS Shape

* DATA TYPE Geometry

* WIDTH 0

* PRECISION 0

- * SCALE 0
- * FIELD DESCRIPTION
Feature geometry.
- * DESCRIPTION SOURCE
ESRI
- * DESCRIPTION OF VALUES
Coordinates defining the features.

Hide Field Shape ▲

FIELD STATIC_E ►

- * ALIAS static_e
- * DATA TYPE SmallInteger
- * WIDTH 4
- * PRECISION 4
- * SCALE 0
- FIELD DESCRIPTION
Potentiometric surface in feet

DESCRIPTION SOURCE
IDNR

Hide Field STATIC_E ▲

Hide Details for object BED_PSM_Warren_Co_IN ▲

Hide Fields ▲

Metadata Details ►

- * METADATA LANGUAGE English (UNITED STATES)
- METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
SCOPE NAME * dataset

- * LAST UPDATE 2015-07-24

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
METADATA STYLE FGDC CSDGM Metadata
STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS FOR THE ITEM 2015-07-14 14:56:25
LAST MODIFIED IN ARCGIS FOR THE ITEM 2015-07-24 11:42:54

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2015-07-24 11:42:54

ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2015-05-19 08:07:22
FROM \\iotisip01pa.state.in.us\dnrgis\$!\Potentiometric\Warren\6_Reviews\review
files\warren_bed_review_2
To \\iotisip01pa.state.in.us\dnrgis\$!
Potentiometric\Warren\3_Working\warren_bed_review_2

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT

INDIVIDUAL'S NAME Glenn E. Grove
ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
CONTACT'S POSITION Resource Assessment Section
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4160
FAX 317-233-4579

ADDRESS

TYPE both
DELIVERY POINT 402 W. Washington Street W264
CITY Indianapolis
ADMINISTRATIVE AREA Indiana
POSTAL CODE 46204
COUNTRY UNITED STATES
E-MAIL ADDRESS ggrove@dnr.IN.gov

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Metadata Maintenance ▲](#)

Metadata Constraints ►

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

OTHER CONSTRAINTS

Access constraints: This metadata file is intended to accompany the subject geospatial set. This file may be updated, and the most recent version is available by contacting the IDNR Division of Water.

[Hide Metadata Constraints ▲](#)

FGDC Metadata (read-only) ▼